

REMARKS

Claims 1-13 and 19-26 are pending in the application. Reconsideration of the application in light of the following remarks is respectfully requested.

**I. REJECTION OF CLAIMS 1-2, 6, 9-10, 13, 19-21 AND 24-26 UNDER
35 U.S.C. § 103(a)**

Claims 1-2, 6, 9-10, 13, 19-21 and 24-26 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,078,738 (Garza et al.) in view of U.S. Patent No. 5,801,954 (Le et al.). Withdrawal of the rejection is respectfully requested for at least the following reasons.

In responding to applicants' arguments regarding the combination of Garza et al. and Le et al., the Office Action asserts that motivation for the combination does indeed exist. Applicants respectfully disagree and submit that the Office Action is not employing the proper standard in determining whether the requisite motivation for the combination exists. As stated in a previous response and set forth by the Federal Circuit, motivation for combining together references may be found within the prior art references themselves (explicitly or implicitly), in the general knowledge of those skilled in the art, or in the nature of the problem to be solved. Ruiz v. A.B. Chance Co., 357 F.3d 1270, 1276 (Fed. Cir. 2004). Furthermore, and importantly, such motivation ***must be clear and particular***. In re Dembiczak, 175 F.3d 994, 999 (Fed. Cir. 1999). It is respectfully submitted that upon a proper evaluation of the cited art, no clear and particular motivation exists, and consequently such combination is improper for at least the following reasons.

- i. The cited references are directed toward solving different problems and consequently no motivation exists with respect to the nature of the problem to be solved.***

As stated previously, while Garza et al. and Le et al. are both directed to lithography issues in a general sense, ***each reference is directed to a substantially***

different problem that is not considered or appreciated in the other reference. For example, Garza et al. do not care what the OPC design is for a given mask. Rather, Garza et al. direct their efforts toward a lithography simulation process, wherein for a given input (mask data, with or without OPC, the content of the input data does not matter), the simulator generates a simulation output which is compared to an actual feature generated with the mask. Based on a comparison of the simulated output and the actual feature, **the simulation process is modified** to more closely approximate the actual feature. Consequently, whether or not the input data includes an OPC design is irrelevant to Garza et al.

Le et al. differ from Garza et al. because Le et al. disclose a process for design and evaluation of a mask layout. In Le et al. a simulator is employed to generate an output. Analysis of the simulation output, however, **is not employed to alter the simulator**, but instead is employed to modify the input mask data. Thus **Le et al. is directed toward the content of the input data** and assumes that the simulation provides an accurate output for a given set of input mask data.

Clearly, the two cited references are directed toward solving different problems. Consequently, one of ordinary skill in the art, upon reviewing each reference and appreciating the different problems addressed by the references, would not be motivated to make the combination because the nature of the problem being solved in each reference differ dramatically.

ii. The Office Action improperly compares Le et al. with elements of the present invention for support that the combination of Garza et al. and Le et al. is proper.

On page 3, paragraph 4 of the Office Action (O.A., 5/19/04), it states that Le et al. disclose an analysis system having several elements similar to that in the claimed invention, and that such teaching shows that Garza et al. and Le et al. are combinable. Applicants respectfully disagree. While it is arguable whether Le et al. teach these elements, even if they do, it is respectfully submitted that **applicants' own teaching**

can not be employed as motivation for combining together prior art references, as use of applicants' disclosure results in a hindsight reconstruction of the invention, which is strictly prohibited.

In addition, to the extent that Garza et al. and Le et al. may each share some common elements, ***such commonality is not sufficient*** to conclude that such art may be properly combined. Because both references are directed generally to lithography, it is reasonable to find a number of shared elements. However, the Fed. Cir. has clearly indicated that references simply sharing common technology is not sufficient to meet the standard that ***motivation must be clear and particular***. (In re Dembiczak).

Neither reference makes any explicit statement or provides inferences that would suggest to one of ordinary skill in the art that such references should be combined. In addition, each reference is directed toward a different problem that is neither addressed nor even appreciated by the other. Therefore the combination of the cited art is improper. Accordingly, withdrawal of the rejection is respectfully requested.

II. REJECTION OF CLAIMS 3-5, 7-8, 11-12, AND 22-23 UNDER 35 U.S.C.

§ 103(a)

Claims 3-5, 7-8, 11-12 and 22-23 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Garza et al. in view of Le et al., and further in view of a number of tertiary references (U.S. Patent No. 5,962,173 (Leroux, claims 3 and 22), U.S. Patent No. 5,698,346 (Sugawara, claim 4), U.S. Patent No. 6,268,093 (Kenan, claims 5, 7 and 23), and U.S. Patent No. 5,723,233 (Garza '233, claim 8)).

As stated above, the combination of Garza et al. and Le et al. is improper, and none of the tertiary references highlighted above remedy the deficiencies in the primary references. Consequently, the above claims are patentable over the cited art for at least the same references. In addition, it is again respectfully submitted that none of the references teach or suggest the features of claim 4 for at least the following reasons.

- i. ***Neither the primary references nor Sugawara teach or suggest a second image determined from a corresponding segment of another feature from a different mask fabrication process, as recited in claim 4.***

In responding to applicants' previous response of March 17, 2004, that claim 4 was not taught by Sugawara, the Office Action stated that the term "different mask fabrication process" is not defined and that, consequently, the claim term can be given its broadest reasonable interpretation. Applicants respectfully disagree that the phrase is inherently vague or unclear, or that no discussion is provided in the specification to aid in understanding the phrase at issue. The term "different mask fabrication process" clearly indicates that the fabrication process by which one mask is fabricated is different from the fabrication process used to generate another mask. This clear, ordinary meaning is further supported by applicants' specification, for example, on page 4, lines 13-26, wherein a discussion is provided about how different mask fabrication processes may result in mask patterns that approximate an intended feature, but are nevertheless different therefrom. For example, the specification clearly states:

[f]or example, the mask pattern 86 formed by the mask fabrication process A of prior art Figure 7 may have been generated using a dry etch while the mask pattern 88 formed by the mask fabrication process B may have been generated using a wet etch which caused the mask patterns 86 and 88 to differ. (Spec., page 4, lines 19-22).

Therefore the meaning of claim 4 as set forth in the specification comports with the ordinary meaning of the phrase. Further, such interpretation does not extend to the interpretation proffered in the Office Action that such phrase covers an instance where two feature patterns formed by the same photomask are evaluated. Rather, ***the prior art teaches two features formed by different portions of the same mask that were formed using the same mask fabrication process.***

Therefore the cited art does not teach the present invention. Therefore claim 4 is non-obvious over the cited art for at least this additional reason. Accordingly, withdrawal of the rejection is respectfully requested.

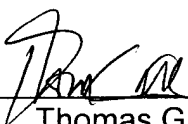
III. CONCLUSION

For at least the above reasons, the claims currently under consideration are believed to be in condition for allowance.

Should the Examiner feel that a telephone interview would be helpful to facilitate favorable prosecution of the above-identified application, the Examiner is invited to contact the undersigned at the telephone number provided below.

Should any fees be due as a result of the filing of this response, the Commissioner is hereby authorized to charge the Deposit Account Number 50-1733, AMDP440USA.

Respectfully submitted,
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CERTIFICATE OF MAILING (37 CFR 1.8a)

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to: Mail Stop AF, Commissioner for Patents, P.O. Box 1450 Alexandria, VA 22313-1450

Date: June 28, 2004

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Christine Gillroy